9. (New) A print comprising:

a substrate having two surfaces, on both of which are provided an ink receiving layer containing an inorganic pigment and a layer comprising latex resin, in this order,

wherein an image is formed on at least one of the ink receiving layers, and

wherein the layer comprising latex resin forms a transparent film upon heating of said print.

REMARKS

Favorable reconsideration and allowance of the subject application are respectfully solicited.

Claims 1-9 are pending in this application, with Claims 1 and 9 being independent. Claims 4 and 5 are withdrawn from consideration. Claim 1 has been amended to improve its form. It is submitted that no new matter has been added.

Claims 1-3 stand rejected under 35 U.S.C. 103(a) as allegedly obvious over U.S. Patent No. 6,203,899 (Hirose et al.), taken either alone or in view of U.S. Patent No. 6,180,238 (Malhotra) or U.S. Patent No. 4,554,181 (Cousin et al.). Applicant respectfully disagrees with this rejection.

Before addressing the merits of the rejection based on the Hirose et al. patent, Applicant believes it will be helpful to review some features and benefits of the claimed invention. The present invention, as recited in independent Claim 1, relates to a recording medium comprising a substrate having two surfaces, on both of which are provided an ink receiving layer containing an inorganic pigment and an outermost surface layer containing a thermoplastic latex resin. The outermost latex surface layer forms a transparent film upon heating of the recording medium. Independent Claim 9 relates to a print and recites features similar to those of independent Claim 1.

An ink jet recording medium having a film forming layer, such as latex, provided on the outermost surface of a substrate exists in the art. However, this recording medium tends to curl as a result of the film forming layer being provided only on one side thereof. As a result of his research, the Applicant of the present invention found that the curling problem could be solved by providing an ink receiving layer and an outermost surface layer containing a thermoplastic latex resin on both sides of the substrate.

In Applicant's view, the cited references do not teach or suggest the claimed invention. The Hirose et al. patent is directed towards a printing medium, and an ink-jet printing process and an image-forming process using the medium. The printing medium is disclosed as comprising an ink-receiving layer

provided on a liquid-absorbent base material. The ink-receiving layer comprises a pigment, a binder and a cationic substance. A surface layer provided on the ink-receiving layer is composed principally of cationic ultra fine particles as inorganic particles.

However, Applicant submits that the Hirose et al. patent does not disclose preventing curl of a printing medium by providing an ink receiving layer and an outermost surface layer containing a thermoplastic latex resin on both sides of a substrate. In fact, the Hirose et al. patent does not disclose coating both sides of a substrate of a printing medium at all.

Further, Applicant submits that the Hirose et al. patent fails to disclose or suggest that the outermost latex surface layer forms a transparent film *upon heating of the recording medium*. The Examiner recognizes that the Hirose et al. patent does not explicitly disclose that the outermost layer forms a transparent film upon heating of the recording medium. However, the Examiner asserts that the outer layer of Hirose et al. should inherently be transparent "since it may be formed of the same latex materials as recited by applicants" and "since the ink-receiving layer is below the gloss providing outer layer, transparency of the outer layer would have been considered an important property of the medium of Hirose et al."

It is submitted, however, that it is not inherent that the outermost latex surface layer of the Hirose et al. patent

would form a transparent film upon heating of the recording medium, nor would this feature be obvious in view of the Hirose et al. patent. To establish inherency, the missing feature must "necessarily be present" in the reference. MPEP 2112. There is no suggestion that the printing medium of the Hirose et al. patent necessarily forms a transparent film upon heating of the recording medium. For example, Applicant does not understand the Hirose et al. patent to disclose or suggest an ink-jet recording medium that is designed to be heated after ink-jet recording. Thus, even assuming, for the sake of argument, that the outer layer disclosed in the Hirose et al. patent were transparent before heating, there is no suggestion that it would remain so after heating. Further, the Hirose et al. patent discloses that the outer layer may include "other additive components," which might affect the transparency of the outer layer upon heating (col. 4, line 43). Thus, it cannot be said that the outermost layer of the Hirose et al. patent inherently forms a transparent film upon heating of the recording medium, nor can it be said that this feature would be obvious in view of the Hirose et al. patent.

The Malhotra patent, and the Cousin et al. patent were both cited by the Examiner for teaching coating both the front and back surfaces of the base material; however, neither of these references remedies the deficiencies of the Hirose et al. patent set forth above. While both references mention that the base material or substrate may be transparent (Malhotra, at col.11,

line 18; Cousin et al., at col.7, line 34), it is submitted that there is no mention that the outermost latex surface layer forms a transparent film upon heating of the recording medium.

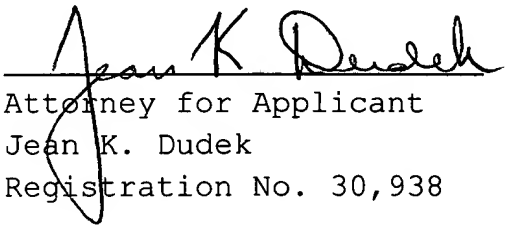
Accordingly, Applicant concludes that the Hirose et al. patent, the Malhotra patent, and the Cousin et al. patent, whether taken alone or in combination, do not teach or suggest, inter alia, a substrate having two surfaces, on both of which are provided an ink receiving layer and an outermost surface layer containing a thermoplastic latex resin, and that the outermost latex surface layer forms a transparent film upon heating of the recording medium, as variously recited in the independent claims. Thus, withdrawal of the Section 103 rejection is respectfully requested.

Applicant submits that the present invention is patentably defined by independent Claims 1 and 9. The dependent claims are allowable for the reasons given with respect to Claim 1, and because they recite features which are patentable in their own right. Individual consideration of the dependent claims is respectfully solicited.

In view of the above amendments and remarks, the claims are now in allowable form. Therefore, rejoinder of withdrawn Claims 4 and 5 and early passage to issue are respectfully solicited.

Applicant's undersigned attorney may be reached in our Washington, D.C. office by telephone at (202) 530-1010. All correspondence should continue to be directed to our below-listed address.

Respectfully submitted,



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VERSION WITH MARKINGS TO SHOW CHANGES MADE TO CLAIMS

1. (Three Times Amended) A recording medium comprising:

a substrate having two surfaces, on both of which are provided[;] an ink receiving layer containing an inorganic pigment[;] and an outermost surface layer containing a thermoplastic latex resin, in this order,

wherein [said ink receiving layer and said outermost latex surface layer are provided on both surfaces of the substrate and] the outermost latex surface layer forms a transparent film upon heating of the recording medium.